Paper No. 23

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte MAMORU SAWADA
and
KOUJI OKAZAKI

Appeal No. 1999-0933
Application No. 08/512,396

HEARD: OCTOBER 12, 2000

Before FRANKFORT, McQUADE, and LAZARUS, Administrative Patent Judges.

FRANKFORT, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 1 through 4, 6 and 8 through 11, which are all of the claims remaining in this application. Claims 5, 7 and 12 through 27 have been canceled.

Appellants' invention relates to an automotive brake-fluid pressure control apparatus employed for example in traction control during acceleration slippage. A copy of representative claim 1, the only independent claim on appeal, can be found in the Appendix to appellants' brief.[1]

The sole prior art reference of record relied upon by the examiner in rejecting the appealed claims is:

Willmann	GB 2 257 214 A	Jan. 6, 1993
(Published British Patent Application)		

Claims 1 through 4, 6 and 8 through 11 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Willmann.

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[1]While the examiner has indicated that the copy of the claims in the Appendix is correct (answer, page 2), we note that the Appendix includes two claims numbered as “2.” A review of the record shows that the first claim 2 listed in the Appendix is the correct claim on appeal, while the second claim numbered as “2” was the original claim that was amended in Paper No. 10, filed August 7, 1997.

The examiner's full statement of this rejection and response to appellants' arguments appears in the final rejection (Paper No. 11, mailed November 7, 1997) and examiner's answer (Paper No. 16, mailed July 24, 1998). Appellants' viewpoints concerning the examiner's rejection of the appealed claims are found in the brief (Paper No. 15, filed June 8, 1998) and in the reply brief (Paper No. 17, filed September 23, 1998).

OPINION

In arriving at our decision in this appeal, we have carefully considered appellants' specification and claims, the applied Willmann reference, and the respective viewpoints of appellants and the examiner. As a consequence of our review, we have made the determination that the examiner's rejection of claims 1 through 4, 6 and 8 through 11 under 35 U.S.C. § 102(b) will not be sustained. Our reasons follow.

As noted by appellants, claim 1 on appeal requires a "termination controlling means" for altering the position of the switching valves of the brake fluid pressure control apparatus and for specifically driving the pressure-control valve (e.g., 48FL)

to a state in which brake fluid is expelled from the wheel cylinder to the intake side of the pump (e.g., 60) through said discharge conduit and moreover driving said pump so that brake fluid in a wheel cylinder side is returned to said master cylinder side, at a time of termination of control of motion characteristics of said vehicle by said vehicle motion characteristics controlling means. According to the examiner, the automotive brake fluid pressure control apparatus of Willmann includes a control device (52) therein that is responsive to appellants' termination controlling means and performs the claimed function.

Highlighting the disclosure of Willmann bridging pages 11 through 12, the examiner notes that this reference indicates that upon completion of an anti-slip control operation

> the pressure medium supplied to the wheel brake 8 for the build-up of brake pressure is returned to the master brake cylinder 3. The control device 52 switches the valves into their original position and completes the pump operation.

From this disclosure, the examiner reaches the conclusion set forth in the answer (pages 3-4) that

> shut-off valve 32 is opened and the pump 26 is operated to extract excess brake fluid from the wheel cylinders 8, 9 via outlet valves, 21, 45. Note outlet valves 21, 45 are at this time opened (energized) and the inlet valves 20, 44 are closed (de-energized) so that fluid exiting the wheel cylinders 8, 9 can be returned to the master cylinder 3 via the pump 26, fluid line 6 and shut-off valve 32. It is "after" the fluid is returned to the master cylinder 3 that the control unit 52 switches the inlet valves 22, 44 and outlet valves 21, 45 to their original positions as shown in figure 1 of Willmann and thus completes or stops the operation of the pump 26. This process of returning the fluid from the brake wheel cylinders via the closing of the inlet valves and the corresponding opening of the outlet valves is well known in the art and is maintained to be the only way that fluid from the wheel cylinder can return to the master cylinder. [Emphasis original.]

Appellants read the above disclosure at pages 11-12 of Willmann and reach the conclusion that the control device (52) opens the shut-off valve (32) so that brake fluid returns to the master cylinder (3) through the shut-off valve (32) at the end of traction control and that, at the same time, the control device (52) switches other valves (e.g., 38, 44) into their original position and terminates operation of the pump. Thus, appellants urge that Willmann fails to teach that the pressure control valve (e.g., 21) is switched to a position where brake fluid is expelled from the wheel cylinder to the intake side of the pump and the pump is driven.

Responding to the examiner's position quoted above, appellants also urge (reply brief, page 2) that

> [t]he fluid can return to the master cylinder 3 without use of the pump because the wheel cylinder 8 always biases the fluid introduced thereto with a small force to get the fluid out of the wheel cylinder 8 so that the braking operation is carried out only when pressurized brake fluid is applied to the wheel cylinder. Thus, when the brake pedal is not depressed, pressure in the master cylinder 3 is equal to atmospheric pressure. Because of this imbalance of pressure, the fluid can return from the wheel cylinder 8 to the master cylinder 3 just by opening the inlet valve 20 and shutoff valve 32. Thus, the assumption that the process of returning the fluid from the brake wheel cylinders via the closing of the inlet valves and the corresponding opening of the outlet valves is the only way that fluid from the wheel cylinder can return to the master cylinder is clearly erroneous.

Like appellants, we find the examiner's position that the claimed subject matter as set forth in claim 1 on appeal is clearly anticipated by Willmann to be in error. In our opinion, the examiner's determination is made without any clear support in the applied reference and is based on speculation and conjecture on the examiner's part. In this regard, we note that it is well settled that inherency may not be established by probabilities or possibilities, but must instead be "the natural result flowing from the operation as taught." See In re Oelrich, 666 F.2d, 578, 581, 212 USPQ 323, 326 (CCPA 1981). In the present case, the disclosure

of Willmann does not provide an adequate factual basis to establish that the natural result flowing from following the teachings of that reference would be a termination controlling means like that claimed by appellants which functions in the required manner.

The appellants' description of the operation of the control device (52) of Willmann upon completion of the anti-slip control operation is in accordance with what appellants' have identified (specification, pages 1-3) as being conventional in the prior art prior at the time of appellants' invention and, thus, is at least as likely to be a correct understanding of the disclosure in Willmann as the examiner's position, if not more so. Accordingly, since all the limitations of appellants' independent claim 1 are not found in Willmann, either expressly or under principles of inherency, it follows that the examiner's rejection of claim 1, and of claims 2 through 4, 6 and 8 through 11, which depend therefrom, under
35 U.S.C. § 102(b) relying on Willmann will not be sustained.

In accordance with the foregoing, it is clear that the decision of the examiner is reversed.

In addition to our determination above, we find it necessary to REMAND this application to the examiner for a consideration of whether or not a rejection of the claims on appeal would be appropriate under 35 U.S.C. § 112, second paragraph, since the invention as defined in the claims on appeal appears to be inconsistent with that described in appellants' specification. More specifically, we note that claim 1 on appeal requires, in the clause setting forth the termination controlling means, that the first switching valve (e.g., 70FL) be placed at said interrupted position and said second switching valve be placed at said communicated position at a time of termination of control of motion characteristics of said vehicle by said vehicle motion characteristics controlling means. However, the placing of the second switching valve "at said communicated position" as set forth in claim 1 appears to be inconsistent with the clear disclosure of the invention on pages 19 and 20 of appellants' specification. While appellants have not clearly identified exactly which of the valves in their control apparatus corresponds to the "second switching valve," such valve must be either the valve (50FL) or the valve (46FL), both of which are described in the specification as being at the "interrupted" or "on" position at a time

of termination of control of motion characteristics of said vehicle by the vehicle motion characteristics controlling means. Thus, we have remanded the application to the examiner so that this issue can be addressed and resolved before the examiner.

While the paper filed by appellants on October 19, 2000 (Paper No. 22), subsequent to the oral hearing in this case, is not provided for in the Rules (37 CFR), we will nonetheless comment on appellants' position set forth therein because it will serve to advance the prosecution of this application. Notwithstanding, the disclosure on page 14 of the specification pointed to by appellants, we remain of the view above that claim 1 on appeal appears to be inaccurate. Claim 1, lines 9-11, define the second switching valve as being "switchable to a communicated position and to an interrupted position." The mere fact that the interrupted position may also provide some communication to the master cylinder (34) and reservoir (68) under some circumstances as set forth on page 14 of appellants' specification does not change the fact that the valve (e.g., 50FL) is in its interrupted position during operation of the termination controlling means as clearly set forth on pages 19 and 20 of the specification and not "at said communicated position" as presently set forth in claim 1 on appeal.

This application, by virtue of its “special” status requires an immediate action.

MANUAL OF PATENT EXAMINING PROCEDURE § 708.01 (7th ed., Rev. 1, Feb. 2000).

REVERSED and REMANDED

CHARLES E. FRANKFORT Administrative Patent Judge	)	
JOHN P. McQUADE Administrative Patent Judge	)	BOARD OF PATENT APPEALS AND INTERFERENCES
RICHARD B. LAZARUS Administrative Patent Judge	)	

CEF:hh

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